

# mark your calendar



Dayton, OH

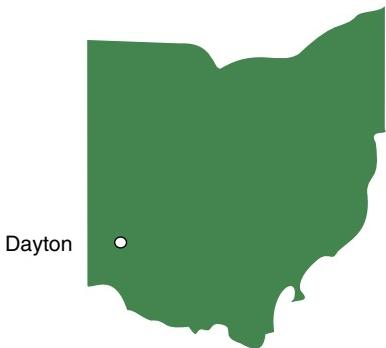
August 17, 2004



Real-Time & Embedded  
computing conference



**bringing an essential resource to you**



August 17, 2004  
**Hope Hotel & Conference Center**

Wright Patterson Air Force Base  
(at Gate 12-A, just before entering the base)  
Dayton, OH 45433  
937-879-2696  
[www.rtecc.com/dayton](http://www.rtecc.com/dayton)

**8:00 am–3:00 pm**

We invite you to be our guest at the  
Real-Time & Embedded Computing Conference  
Complimentary Exhibits • Technical Sessions • Parking • Lunch  
Discover your solution to keep your project  
and company ahead of the competition

Register now at [www.rtecc.com](http://www.rtecc.com) or call 800-755-7380

*To view future dates and locations online, go to [www.rtecc.com](http://www.rtecc.com)*



**Real-Time & Embedded  
computing conference**

Portland  
San Jose  
Copenhagen  
Albuquerque  
Phoenix  
Madrid  
Barcelona  
Denver  
Salt Lake City  
Milan  
Rome  
Melbourne  
Huntsville  
Boston  
Newport  
Zurich  
Nuremberg  
Chicago  
Minneapolis  
Moscow  
Austin  
Dallas  
Houston  
Greenbelt  
Dayton  
Sydney  
Melbourne  
Los Angeles  
San Diego  
Helsinki  
Stockholm  
Toronto  
Ottawa  
Montreal  
Göteborg  
Oslo  
Washington  
Pax River  
Toulouse  
London  
Eindhoven  
Taipei  
Vancouver  
Seattle  
Dubai  
Augusta  
Tel Aviv  
Raleigh/Durham

# a unique event of industry leaders



**Real-Time & Embedded computing conference**

## The Real-Time & Embedded Computing Conference.

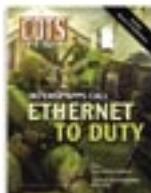
A distinctive collection of conference sessions and exhibits specifically for embedded computing engineers, managers and decision-makers.

Join us for an in-depth look from dozens of technical experts in the real-time and embedded marketplace. Get face-to-face with technical experts for news and insights you can't get on the web.

We know your time is valuable, spend it wisely

---

## Media Sponsors



*COTS Journal* Addresses the real needs of designers and program managers

COTS Journal delivers comprehensive coverage of embedded-computer industry standards, applications and technologies as they apply to the defense community.

*Complimentary Subscription within the U.S.*

[www.cotsjournalonline.com](http://www.cotsjournalonline.com)



Be a part of the magazine that brings you a world of technology solutions

RTC magazine is the industry's premier magazine covering a wide range of embedded, board level technologies and peripheral components and subsystems.

*Complimentary Subscription within Europe and U.S.*

[www.rtcmagazine.com](http://www.rtcmagazine.com)



---

## NEW Release!

Embedded Networking with CAN and CANopen..... Embedded networking, code and communications; CAN technology; selecting CAN controllers; implementation options; application-specific examples

[www.rtcbooks.com](http://www.rtcbooks.com)

556 pages - ISBN 0929392787



# real-time & embedded computing conference



Your Essential Resource. This single-day event is specially designed for people developing computer systems and time-critical applications serving multiple industries, such as: military and aerospace, industrial control, data communication and telephony, instrumentation, consumer electronics, image processing, process control, medical instrumentation, vehicular control and maintenance, embedded appliances and more.

Technology Knows No Borders. Around the globe thousands of your peers attend the Real-Time & Embedded Computing Conference every year. Join us and be a part of an event that offers what you need to get ahead.



Open-door Technical Sessions. Get the latest information on growing and emerging technologies in multi-track sessions presented by industry experts.



Exhibition. Your Resource Opportunity. A unique personal and professional setting to talk face-to-face with experts who are integrating a wide range of products into projects every day. Compare technologies, ask questions and learn about all the options available.



Single Day Events. Appearing in strategic locations around the globe, this event happens once a year in your location. It is now in your area.



Pre-register by August 12th and we'll have a badge waiting for you. Register Online at [www.rtecc.com](http://www.rtecc.com) or call The RTC Group at 800-755-7380

# Open-door Technical Sessions

## Dayton, OH

August 17, 2004

8:45 – 9:30 AM

### Controller Area Network (CAN) - Serial Network Technology for Embedded Solutions

presented by esd electronics

Controller Area Network (CAN) is a serial network originally designed for the automotive industry, and has become a popular bus in industrial automation as well as other applications. The CAN bus is primarily used in embedded systems, and as its name implies, is a network technology established among microcontrollers. It is a two-wire, half duplex, high-speed network system and is well suited for high speed applications using short messages. We will teach the basics of CAN and aspects of implementation and development.

### The Role of an OS & Network Stack in Designed High Reliability Networked Devices

presented by Green Hills Software

Join us for a technical discussion on the role of an operating system and network stack in designed high reliability networked devices. We'll discuss networking requirements as well as implementation details to provide performance, uptime, and response time guarantees for embedded systems.

### Tips on Addressing the Top Challenges of Embedded Computing

presented by Motorola Computer Group

The major challenge of today's high end embedded computing solution designers is gaining the competitive advantage with cost-efficient solutions while protecting their customer's technology investment. Attend this session lead by Motorola technology experts to learn how the latest advancements in embedded computing technology can give you the edge to win.

10:00 – 10:45 AM

### CANopen - Higher Layer Protocol based on Controller Area Network

presented by esd electronics

CANopen is a networking technology based on the serial bus system "Controller Area Network" (CAN) which connects a master device (most probably a PC) with numerous slave devices such as digital I/O, analog I/O, motion controllers, sensors, actuators, etc. Developed originally for passenger cars, the CAN two-wire bus system is already in use in over one million industrial control devices all over the world. In this session you will learn the basics of CANopen plus all aspects of implementation and development.

### Specifying Parameters for Real-Time Networks

presented by Systran

The proper specification of network parameters allows a single physical layer to handle a complex mixture of network traffic. It is important to look at throughput requirements along with latency and deterministic needs. This technical session looks at specifying these programs based upon the application being performed.

### Redefining Embedded Development

presented by Wind River

See how Wind River Platforms is changing the embedded software industry with the first ever market-specific integrated platforms. Our new standardized integrated platforms provide a complete foundation to meet the specific requirements of vertical markets. Learn how Wind River Platforms pre-integrates market-leading operating systems, tools, connectivity software, and management features with reference hardware, services and partner technologies. The resulting depth of these platforms reduces project risk and enables developers to focus on differentiation and enhanced product performance.

### Directions to the Hope Hotel & Conference Center

From I-675:

- At Exit-20, follow Dayton-Yellow Springs Rd. to Ohio 444
- Turn left on Ohio 444
- At the next light turn right (as if to go through Gate 12A)
- Bear right turning into the entrance of the Hope Hotel



11:15 – 12:00 PM

#### Linux for Embedded Systems

presented by LynuxWorks

Linux is easily the fastest growing operating system in the embedded world and is an excellent platform for a wide range of embedded computing tasks. In this session we will demonstrate how you can develop with Linux in all your embedded designs, from general purpose, to hard real-time, to safety critical and secure systems. You will learn how to develop multiple applications using the same API and with the same tools regardless of the operating systems requirements for the end product. This presentation will also address our vision for Linux, real-time, safety and security in the shaping of the embedded marketplace.

#### Using FPGAs for Signal Processing

presented by Mercury Computer Systems

FPGAs have great advantages for some signal processing operations, but all algorithms are not well-suited to an FPGA implementation. This presentation covers a system-level approach in which FPGAs and PowerPCs are connected by a high-bandwidth switch fabric, enabling an application to be partitioned between them for maximum effectiveness. Supported by system software and integration tools, it is a flexible and effective architecture.

#### Data Distribution Service Middleware Standard for Real-Time Applications

presented by Real-Time Innovations

The Data Distribution Service (DDS) for Real-Time Systems is an important new standard that describes Data-Centric Publish-Subscribe network communications. This session will clearly describe the differences between data-centric publish-subscribe and object-centric client-server networking (CORBA), along with the applicability of each. Examples, using the NDDS product implementation, will be provided.

1:00 – 1:45 PM

#### Embedded Linux: The Time is Now

presented by MontaVista Software

This session discusses the rising interest in Linux for embedded and real-time systems. The traditional embedded development model is facing incredible pressure including rapid time-to-market, software complexity, growth in the size of development teams, and much more. We will examine how the embedded market has evolved and review its key drivers today including the evolution of the ‘software stack’ and technological hardware advances. We’ll look in detail at how the techniques in the new embedded development era using Linux, make Linux a viable platform for real-time embedded systems development, and the impact of these changes on your development process.

#### Real-Time CORBA

presented by Objective Interface Systems

Learn first hand about ‘Real-Time CORBA’ for the development of hard real-time systems, where reliability and predictability are critical, uniquely suited to building fast, reliable distributed systems that are predictable from end-to-end. See how Real-Time CORBA can be used by developers building applications with hard deadlines, such as those found in avionics and process control. These communities require maximum performance and deterministic capabilities so they choose the only real-time standard for distributed systems.

#### Linux Advances in the 2.6 Kernel

presented by LynuxWorks

Linux is shaping the embedded marketplace today and is becoming a driving force in embedded systems design. We will discuss the advances in the 2.6 Linux kernel and how these kernel advances are better suited to embedded systems, particularly those systems requiring some degree of determinism and predictable performance. We will also address why POSIX conformance is important for embedded developers.

**BE OUR GUEST FOR LUNCH IN THE EXHIBITION HALL**

**Exhibit Hours**  
**8:00 am – 3:00 pm**

## Exhibitors

exhibitors as of July 28, 2004

Accelerated Technology <a href="http://www.acceleratedtechnology.com">www.acceleratedtechnology.com</a>	Hagiwara Sys-Com <a href="http://www.hsc-us.com">www.hsc-us.com</a>	Radstone Technology <a href="http://www.radstone.com">www.radstone.com</a>
Aonix <a href="http://www.aonix.com">www.aonix.com</a>	ITCN <a href="http://www.itcninc.com">www.itcninc.com</a>	Real-Time Innovations <a href="http://www.rti.com">www.rti.com</a>
BSQUARE <a href="http://www.bsquare.com">www.bsquare.com</a>	ICOP Technology <a href="http://www.icoptech.com">www.icoptech.com</a>	SBS Technologies <a href="http://www.sbs.com">www.sbs.com</a>
Connect Tech <a href="http://www.connecttech.com">www.connecttech.com</a>	Kontron <a href="http://www.kontron.com">www.kontron.com</a>	Silicon Turnkey Express <a href="http://www.silicontky.com">www.silicontky.com</a>
DNA Computing Solutions <a href="http://www.dnacomputingsolutions.com">www.dnacomputingsolutions.com</a>	LynuxWorks <a href="http://www.lynuxworks.com">www.lynuxworks.com</a>	Synergy Microsystems <a href="http://www.synergymicro.com">www.synergymicro.com</a>
Dolphin Interconnect Solutions <a href="http://www.dolphinics.com">www.dolphinics.com</a>	Mercury Computer Systems <a href="http://www.mc.com">www.mc.com</a>	Systran <a href="http://www.systran.com">www.systran.com</a>
EBSnet <a href="http://www.ebsnetinc.com">www.ebsnetinc.com</a>	Meta Technical Sales <a href="http://www.metatechsales.com">www.metatechsales.com</a>	Timing Solutions <a href="http://www.timing.com">www.timing.com</a>
ELMA Electronic <a href="http://www.elma.com">www.elma.com</a>	MontaVista Software <a href="http://www.mvista.com">www.mvista.com</a>	Wideband Systems <a href="http://www.wideband-sys.com">www.wideband-sys.com</a>
EMJ Embedded Systems <a href="http://www.emjembedded.com">www.emjembedded.com</a>	Motorola Computer Group <a href="http://www.motorola.com/computer">www.motorola.com/computer</a>	Wind River <a href="http://www.windriver.com">www.windriver.com</a>
Enea Embedded Technology <a href="http://www.ose.com">www.ose.com</a>	Multi-Tech Systems <a href="http://www.multitech.com">www.multitech.com</a>	
esd electronics <a href="http://www.esd-electronics.us">www.esd-electronics.us</a>	Nallatech <a href="http://www.nallatech.com">www.nallatech.com</a>	
GE Fanuc Embedded Systems <a href="http://www.gefanuc.com/embedded">www.gefanuc.com/embedded</a>	Objective Interface Systems <a href="http://www.ois.com">www.ois.com</a>	
Green Hills Software <a href="http://www.ghs.com">www.ghs.com</a>	OEM Micro Solutions <a href="http://www.oemmicro.com">www.oemmicro.com</a>	

---

Complimentary Exhibits • Technical Sessions • Parking • Lunch  
walk in guests are also welcome



**Real-Time & Embedded  
computing conference**

  
an RTC Group production



927 Calle Negocio, Ste. G  
San Clemente, CA 92673

Dayton, OH  
August 17, 2004

#### Media Sponsors



[www.rtecc.com](http://www.rtecc.com)